Weather forecasts that are right on target

27 July 2012 - The weather can have a big effect on archery, arguably more than any other sport. As the archery competition gets underway at Lords Cricket Ground on Friday, archer Mike Peart reveals how he stays on target whatever the weather.

The link between weather and success in archery is perhaps one of the most obvious of all the Olympic sports. Wind, of course, is the archer's biggest enemy, but temperature and particularly humidity also play a part, affecting the equipment the athletes use.

Mike Peart said, "The weather, and especially the wind, has a fundamental impact on the score. Even if I aim dead-centre, the arrow can drift, two, three, four feet away and sometimes I can miss the target.

"I need to know how to prepare. I use the Met Office Weather app to see what the temperature is like, and to see if I need to take my waterproofs or thermals. If it has a high wind forecast I will set up my bow a little bit heavier, prepare mentally and set a different target. It would be unrealistic to think I would set a high score when it is blowing a gale."

Met Office forecasters will be providing accurate wind forecasts to LOCOG ahead of and during the Olympic and Paralympic Games archery competitions.

The forecast for the opening day of the archery competition indicates that Lords Cricket Ground will be rather cloudy with the chance of showers through the course of the day, although these are likely to ease and clear away through the late afternoon and evening.

You can keep up to date with our weather forecasts on our website or with our specific London 2012 Olympics forecasts or by downloading the Met Office iPhone or Android apps for free.

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How weather affects archery

Michael Peart – Professional Archer

My name's Michael Peart and I'm a professional Archer shooting for Archery GB and I'm also their official Olympic reserve for this summers games. I've been shooting for over twenty years and I started because my school went to an outdoor adventure holiday to the Lake District, a YMCA camp, and I tried lots of outdoor sports, canoeing, rock climbing, abseiling and archery. I really enjoyed the archery and when I came home my local club, which is still the club I shoot at, this club here the Deben Archery Club in Ipswich and I've been a member ever since and that was over twenty years ago.

The weather, and especially the wind, has a fundamental impact on our score. On a day like today, you are not going to shoot a world record, you are not going to shoot a national record because as soon as I launch this arrow out of my bow, even though it's travelling at 200mph, the wind will just knock the back of the arrow and drag it across and even if I aim the arrow dead centre that arrow can drift two, three, four foot away and sometimes I can miss the target even though it's a good shot, the wind can just take it totally off. So a part of the skill for that day is to judge the wind, look at the wind sock and try and make the best shot you can and sometimes you have to aim in different places so the wind can actually blow it into the centre. So I will look at the forecast and if it's going to be extremely hot or extremely cold then I have to take the appropriate clothing and if it's going to be really windy I just have to prepare myself mentally and maybe set a different target because it would be unrealistic for me to think I'm going to shoot at this particular high score if it's blowing a gale because that's not going to be possible. So you have to be honest with yourself and set yourself a performance target that's achievable in that weather that you've got in that day.

I can adjust the sight here on the front on the bow and if we've got a wind that's gusting from right to left, I can move my sight over to the right which aims the bow off and as I shoot the arrow the wind will hopefully blow the arrow into the goal. Humidity use to play a part, especially on the arrows. Arrows use to be made of wood and as the humidity changed the arrows would have a different stiffness and cause variability. Even more so than that, the temperature on the limbs use to play a big part. Limbs use to be made of wood and fibreglass which is affected by temperature and the wood use to absorb the humidity. These new limbs are made with carbon fibre foam and they are virtually unaffected. I can shoot with these limbs when they're hot to touch and still if I do a good shot will go straight in the middle.

I get my information from the Met Office iPhone app. I just look through all of the other apps and for me that one seems to be the most clearest, I can save my favourite places where I regularly compete. For me I need to know how to prepare. If I'm leaving home today to go to shoot in Oxford I use the app to see what the temperature is like so if I need to take my waterproofs or whether I need to take my thermals and also if it gives a high wind forecast I might maybe set my bar a little bit heavier or I might just in my mind I might get ready for the fact this probably isn't going to be a high scoring competition but I still need to come out on top.